

[(4) each of said T cell epitope peptides is restricted by at least two molecules of HLA class II molecules of the patient sensitive to the allergens, selected from the group consisting of DP, DO, and DR antigens.]

linear polypeptide molecule, wherein said polypeptide:

- (a) comprises at least one T-cell epitope peptide derived from cedar pollen allergen Cry j 1 and at least one T-cell epitope peptide derived from cedar pollen allergen Cry j 2;
- (b) is not substantially reactive with cedar pollen allergen-specific IgE antibodies in blood of a cedar pollinosis patient;
- (c) is capable of inducing proliferation of T-cell clones specific to each of said T-cell epitope peptides; and
- (d) is capable of dose-dependently inducing proliferation of peripheral lymphocytes from a cedar pollinosis patient.

4. (Amended) The peptide-based immunotherapeutic agent of claim 1, [wherein a site that is processed in the antigen-presenting cells is inserted between each of the T cell epitope regions] further comprising a site that is cleaved *in vivo*.

5. (Amended) The peptide-based immunotherapeutic agent of claim 4, wherein said site [that is processed in the antigen-presenting cells] is an arginine [dimer] or [a] lysine dimer.

6. (Amended) The peptide-based immunotherapeutic agent of claim [3] 1, wherein said [peptide] polypeptide contains [an] the amino acid sequence [described in any] of [SEQ ID NO: 1, SEQ ID NO: 2, or SEQ ID NO: 3] SEQ ID Nos: 1, 2, or 3, or immunostimulatory fragments of SEQ ID Nos: 1, 2, or 3.

13. (Amended) The peptide-based immunotherapeutic agent of claim 1, wherein each of said [T cell] T-cell epitope peptides consists of minimum core sequences [with retaining effective T cell reactivity] which stimulate T-cell proliferation.

Please cancel claims 3, 7-12, and 18-30, and add the following new claims:

1 31. The peptide-based immunotherapeutic agent of claim 1, wherein each of said T-
2 cell epitope peptides contains no cysteine residue.

1 32. The peptide-based immunotherapeutic agent of claim 1, wherein said polypeptide
2 molecule comprises at least one T-cell epitope peptide restricted by HLA class II DR
3 molecule, at least one T-cell epitope peptide restricted by HLA class II DQ molecule, and at
4 least one T-cell epitope peptide restricted by HLA class II DP molecule.

1 33. The peptide-based immunotherapeutic agent of claim 32, wherein said DR
2 molecule is DRB5*0101, DRB4*0101, DRB1*0901, or DRB1*1501, said DQ molecule is
3 DQA1*0102-DQB1*0602, and said DP molecule is DPA1*0101-DPB1*0501, DPA1*0202-
4 DPB1*0501, or DPA1*0101-DPB1*0201.

1 34. The peptide-based immunotherapeutic agent of claim 32, wherein polypeptide
2 molecule consists of the amino acid sequence described in SEQ ID NO: 1.

1 35. A method for treating or preventing the incidence of cedar pollinosis, the method
2 comprising administering an effective amount of a peptide-based immunotherapeutic agent
3 comprising a linear polypeptide molecule, wherein said polypeptide:

4 (a) comprises at least one T-cell epitope peptide derived from cedar pollen allergen
5 Cry j 1 and at least one T-cell epitope peptide derived from cedar pollen allergen Cry j 2;

6 (b) is not substantially reactive with cedar pollen allergen-specific IgE antibodies in
7 blood of a cedar pollinosis patient;

8 (c) is capable of inducing proliferation of T-cell clones specific to each of said T-cell
9 epitope peptides; and

10 (d) is capable of dose-dependently inducing proliferation of peripheral lymphocytes
11 from a cedar pollinosis patient.

1 36. The method of claim 35, wherein said peptide-based immunotherapeutic agent
2 further comprises a site that is cleaved *in vivo*.

1 37. The method of claim 36, wherein said site is an arginine or lysine dimer.

1 38. The method of claim 35, wherein said T-cell epitope peptides contain no cysteine
2 residues.

1 39. The method of claim 35, wherein said polypeptide contains the amino acid
2 sequence of SEQ ID Nos: 1, 2, or 3, or immunostimulatory fragments of SEQ ID Nos: 1, 2,
3 or 3.

1 40. The method of claim 35, wherein said polypeptide molecule comprises at least
2 one T-cell epitope peptide restricted by HLA class II DR molecule, at least one T-cell epitope
3 peptide restricted by HLA class II DQ molecule, and at least one T-cell epitope peptide
4 restricted by HLA class II DP molecule.

1 41. The method of claim 40, wherein said DR molecule is DRB5*0101,
2 DRB4*0101, DRB1*0901, or DRB1*1501, said DQ molecule is DQA1*0102-DQB1*0602,
3 and said DP molecule is DPA1*0101-DPB1*0501, DPA1*0202-DPB1*0501, or
4 DPA1*0101-DPB1*0201.

1 42. The method of claim 40, wherein polypeptide molecule consists of the amino
2 acid sequence described in SEQ ID NO: 1.

1 43. The method of claim 35, wherein each of said T-cell epitope peptides consists
2 of minimum core sequences which stimulate T-cell proliferation.